DOCUMENT RESUME

ED 393 689 SE 058 136

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TITLE The Cheshire Cat and Other Eye-Popping Experiments on How We See the World. The Exploratorium Science Snackbook Series.
INSTITUTION Exploratorium, San Francisco, CA.
REPORT NO ISBN-0-471-11516-9
PUB DATE 95
NOTE 114p.
AVAILABLE FROM Exploratorium, 3601 Lyon Street, San Francisco, CA 94123.
PUB TYPE Guides - Classroom Use - Teaching Guides (For Teacher) (052)

EDRS PRICE Document Not Available from EDRS.
DESCRIPTORS Demonstrations (Science); Elementary Secondary Education; Exhibits; Interdisciplinary Approach; Light; *Optics; Science Experiments; *Visual Perception

ABSTRACT

This book contains scaled-down versions of Exploratorium exhibits that teachers can make using common, inexpensive, easily available materials. Each topic begins with a drawing of the original exhibit on the museum floor, a photograph of the scaled-down version which contains an introduction to the exhibit, a list of materials needed with suggestions on how to find them, assembly instructions, descriptions of how to use the exhibits, and explanations of the scientific concepts behind them. This book is designed to help students explore visual perception as a fascinating interdisciplinary topic where biology and psychology overlap. The experiments included help students understand how the eye works, how the eyes and brain can take very limited information and create a complete picture of the world, and how the eyes and brain can make mistakes in the inperpretation of the world and thus create optical illusions. Exhibits include: Afterimage, Anti-Gravity Mirror, Benham's Disk, Bird in the Cage, Blind Spot, Bronx Cheer Bulb, Cardboard Tube Syllabus, Cheshire Cat, Color Contrast, Depth Spinner, Disappearing Act, Everyone Is You and Me, Fading Dot, Far Out Corners, Gray Step, Jacques Cousteau in Seashells, Mirrorly a Window, Moire Patterns, Peripheral Vision, Persistence of Vision, Pupil, Size and Distance, Squirming Palm, Thread the Needle, Vanna, and Whirling Watcher. (JRH)

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